**3.c.4-6**

**Group Members: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**atmosphere and Meteorology Project**

**General Directions**: Your group will be given three of the Virginia Beach Objectives related to this unit. Your group will be responsible for **researching the objectives, creating a lesson and developing an activity** to teach the three objectives you have been assigned to the rest of the class. Guiding questions have been provided to help you cover each objective. You will be using a PowerPoint slideshow to use as a visual aid to teach the lesson.

**Step 1**: Research your objective using books and resources provided (Databases located at <https://destiny.vbcps.com> and books). Take notes. Be sure to answer the guiding questions in a way that you can easily explain to your classmates. Diagrams, charts and graphs are great tools to visually interpret information. Collect citation information and save to a location you can access (jump drive, H Drive or SharePoint).

**Step 2:** Organize your information so that you can easily share it with others. Develop a PowerPoint presentation with your group to cover your topic. Use the following format as a template for your PowerPoint.

PowerPoint format:

Slide 1-State Key Concept/Topic

Slide 2:  State objective

Slide 3-4:  Guiding Question with 3-5 bullet points

Slide 5:  State Objective

Slide 6-7:  Guiding Question with 3-5 bullet points

Slide 8:  State Objective

Slides 9-10:  Guiding Question with 3-5 bullet points

Slide 11:  Bibliography

Relevant photos/pictures throughout

**Step 3:** Develop activity to be used by classmates during lesson. All group members must contribute to the activity.

Create an incomplete diagram of:

*-Global wind patterns of the Earth*

*-The formation of land and sea breezes*

*-The jet stream*

*-On the diagram sheet include a paragraph explaining the relationship between humidity, wind direction, daily weather and pressure systems.*

**Step 4:** As a group practice teaching your lesson. Remember to use the PowerPoint as a guide but do not read it to the class

**ES3.c Weather Components**

**3.c.4 Identify the major global wind patterns.**

*What is a global wind pattern?*

*What causes the global wind patterns to form?*

*How does each global wind form and where are they located on a diagram of the Earth.*

**3.c.5 Identify and describe the direction of local winds (land, sea breezes, and jet stream.)**

*What is a local wind and how is this different from a global wind?*

*What surface characteristics impact the formation of local winds?*

*How do land and sea breezes form? Use a diagram to explain.*

*What is the jet stream? What is its role in the atmosphere?*

**3.c.6 Relate pressure systems to temperature, humidity, wind direction and weather trends.**

*What is a pressure system?*

*How does temperature, humidity, wind direction, and daily weather relate to pressure systems?*

Fast Facts:

Winds are created by uneven heat distribution at the Earth’s surface and modified by the rotation of the Earth.